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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WONG, BLANCHE

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/075,436	CHEONG ET AL.	
	Examiner	Art Unit	
	Blanche Wong	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-13, 17-19 and 21-29 is/are rejected.
- 7) ☒ Claim(s) 4 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed June 6, 2006, have been fully considered but they are not persuasive.

With regard to claim 1, Applicant contends that "a user pressing a physical QoS key is not the same as the claimed monitoring of a QoS parameter bearing on QoS". Remark, p. 8, para. 7. However, Examiners continues to see their similarity in the existing claim language. Claim 1 does not recite who or what is "monitoring at least one QoS parameter bearing on QoS" but recites a method and the method can very well be implemented by someone, such as a user in Mizutani. In Mizutani, "a QoS key is to request communication quality assurance in accordance with inputs made by the user ... which depends on the service used by the user...", para. [0038]. The system monitors the state of the QoS key. Furthermore, the state of the QoS key is "a QoS parameter bearing on QoS" because it bears the user's QoS of choice.

Applicant also contends that Mizutani does not teach "being variable based on the at least one QoS parameter" and "all of the values of the timers in Mizutani are not variable". Remark, p. 9, para. 1. Examiner clarifies that the durations of the timers varies according to the state of the QoS key. In Mizutani, the user turns the QoS key on and off and thus the duration of the on and off periods can varies. See QoS key state in Fig. 9. The duration of the on and off periods of that state of the QoS key determines the durations of the different timers. See also Fig. 9. So the durations of the timers varies according to the state of the QoS key.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-6,12,13,17-22,28,29** are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Mizutani et al. (Pub No. US2001/0031634).

With regard to claim 1, Mizutani discloses a method comprising:

a) monitoring (**“With the QoS key on ...”, para. [0047], line 3, that is, the system detects the QoS key state on or off; see also QoS key state in Fig. 9)** at least one QoS parameter bearing on QoS (**QoS key state**);

b) determining a first value (**“With the QoS key on, because the PPP keep alive timer is set to a value smaller than the wireless channel state timer...”, para. [0047], lines 4-6)** (it is inherent that there is a value in the wireless channel state timer so that the PPP keep alive timer can be set to a value smaller than the wireless channel state timer) (it is also Examiner’s position that each timer has an initial value) for an active-to-standby transition timer (**wireless channel state timer, para. [0047], line 2; see also wireless channel state timer in Fig. 9)** for a first mobile terminal (**MS, para. [0047], line 8)** based on the at least one QoS parameter (**QoS key state**);

c) setting the active-to-standby transition timer (**wireless channel state timer**) for the first mobile terminal (**MS**) with a first value at the end (**timeout of wireless channel state timer in Fig. 9**) of a data communication session with the first mobile terminal; and

d) instructing (**when QoS key state is off, the wireless channel state timer will timeout and transition to dormant state, but when QoS key state is on, the wireless channel state timer will restart immediately after timeout, see Fig. 8 and 9**) the first mobile terminal to transition from an active mode (**active state in Fig. 9**) to a standby mode (**dormant state in Fig. 9**) if another communication session (**PPP keep alive timer indirectly tells whether there is packet transmission, see Fig. 8**) is not necessary prior to expiration of the active-to-standby transition timer (**wireless channel state timer**) for the first mobile terminal, the first value for the active-to-standby transition timer for the first mobile terminal being variable based on the at least one QoS parameter (**QoS key state**).

With regard to claim 2, Mizutani further discloses a first value that decreases (**see timeout of wireless channel state timer in Fig. 9**) as the at least one QoS parameter changes in a manner adversely affecting QoS (**QoS key state is off**).

With regard to claim 3, Mizutani further discloses a first value that has an initial value (**see analysis for claim 1**) and that is decreased (**see analysis for claim 2**) after the at least one QoS parameter (**QoS key state**) passes a predefined threshold (**off**).

With regard to claim 5, Mizutani further discloses a second value for an active-to-standby timer for a second mobile terminal **(it would be inherent in the method of Mizutani that more than one mobile terminal can use the method)**.

With regard to claims 6, see analysis for claim 2.

With regard to claim 12, Mizutani further discloses
blocking **(QoS key state changes to on in Fig. 9)** standby-to-active transitions **(restart for wireless channel state timer in Fig. 9)** for mobile terminals in the standby mode based on the at least one QoS parameter **(QoS key state)** **(other mobile terminal cannot occupy the same channel)**.

With regard to claim 13, Mizutani further discloses
instructing active mobile terminals to transition to the standby mode **(timeout)** based on the at least one QoS parameter **(QoS key state)** when no data needs to be communicated in association with the active mobile terminals.

With regard to claim 17, Mizutani further discloses
a) a wireless communication interface **(BS, para. [0039], line 9; see also BS in Fig. 1)** adapted to facilitate wireless communications with mobile terminals **(MS in Fig. 1)**; and
b) a control system **(BSC, para. [0039], line 4, see also Fig. 5)** associated with the wireless communication interface.

With regard to claims 17-22, 28 and 29, see analyses for claims 1-6, 12 and 13 respectively.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 7-9 and 23-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani.

With regard to claim 7, Mizutani discloses the method of claim 6.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a first value that decreases at a lower rate than the second value in Mizutani's method. The suggestion/motivation for doing so would have been to provide for two different values decreasing at two different rates. Therefore, it would have been obvious to combine a first value that decreases at a lower rate than the second value with Mizutani for the benefit of two different values decreasing at two different rates, to obtain the invention as specified in claim 7.

With regard to claim 8, Mizutani disclose the method of claim 7.

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At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a first value that has a higher initial value than a second value in Mizutani's method. The suggest/motivation for doing so would have been to provide for two different mobile terminals that does not necessary have the same initial values. Therefore, it would have been obvious to combine a first value that has a higher initial value than a second value with Mizutani for the benefit of two different mobile terminals that does not necessary have the same initial values, to obtain the invention as specified in claim 8.

With regard to claim 9, see analyses for claims 3 and 8.

With regard to claims 23-25, see analyses for claims 7-9 respectively.

6. **Claims 10 and 11, 26 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani in view of Immonen et al. (U.S. 7,010,305).

With regard to claim 10, Mizutani discloses the method of claim 5. However, Mizutani fails to explicitly show a first mobile terminal that is associated with a first QoS level and a second mobile terminal that is associated with a second QoS level.

In an analogous art, Immonen discloses different QoS level for user equipment (see UE's QoS request in Fig. 1, col. 9, lines 17-19).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a first QoS level and a second mobile terminal that is

associated with a second QoS level in Mizutani's method. The suggestion/motivation for doing so would have been to provide for prioritized transmission. Immonen, col. 1, lines 24-34. Therefore, it would have been obvious to combine Immonen with Mizutani for the benefit of a first QoS level and a second mobile terminal that is associated with a second QoS level, to obtain the invention as specified in claim 10.

With regard to claim 11, the combination of Mizutani and Immonen further discloses a plurality of mobile terminals.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a plurality of terminals with first and second values in the combination of Mizutani and Immonen. The suggestion/motivation for doing so would have been to provide for a variety of values for a plurality of terminal as the network expands. Therefore, it would have been obvious to combine a plurality of terminals with first and second values with Mizutani and Immonen for the benefit of network expansion, to obtain the invention as specified in claim 11.

With regard to claims 26 and 27, see analyses for claims 10 and 11 respectively.

Allowable Subject Matter

7. **Claims 14-16** are allowed.
8. Claims 4 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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9. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 4 and 20, the prior art of record fails to anticipate or make obvious a QoS parameter that consists of "a number of active mobile terminals, an amount of communication traffic, system overload, time after system overload, and a combination thereof."

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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July 26, 2006


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